

CLAIM OR CLAIMS

WHAT IS CLAIMED IS:

1. An apparatus for providing a smooth interpolated video signal at a desired  
5 rate from a slower rate video signal comprising:

means for up-sampling the slower rate video signal to the desired rate;

and

means for adaptively filtering the up-sampled slower rate video signal  
using a human vision model to produce the smooth interpolated video signal.

10 2. The apparatus as recited in claim 1 further comprising means for restoring  
a direct current level for the smooth interpolated video signal.

3. An apparatus for providing a smooth interpolated video signal at a desired  
15 rate from a slower rate video signal comprising:

a frame converter for up-sampling the slower rate video signal to  
produce an up-sampled video signal at the desired rate; and

an adaptive filter based on a human vision model for interpolating the  
up-sampled video signal to produce the smooth interpolated video signal.

20 4. The apparatus as recited in claim 3 further comprising an direct current  
restorer having as inputs the smooth interpolated video signal from the  
adaptive filter and the up-sampled video signal for restoring a direct current  
level in the smooth interpolated video signal.

5. A method of providing a smooth interpolated video signal at a desired rate from a slower rate video signal comprising the steps of:

up-sampling the slower rate video signal to the desired rate to produce an up-sampled video signal; and

5 adaptively filtering the up-sampled video signal according to a human vision model to produce the smooth interpolated video signal.

6. The method as recited in claim 5 further comprising the step of restoring a direct current level in the smooth interpolated video signal as a function of the up-sampled video signal.

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